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DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS, UNITED STATES AIR FORCE  
WASHINGTON, D.C. 20330



SXO

4 JUN 81

Sensor Support of Space Shuttle (Your Msg, 151500Z May 81)

NORAD/J-32C

1. In response to your request, the following information is provided:

a. 20MWS operations crews erroneously set a system flag known as the cloud handling flag. This flag, normally manually set for new launches only, enables the FPS-85 to collect observations on multiple objects within a small volume of space. Operations personnel failed to realize that setting this flag overrode normal system tasking and caused excessive metric and SOI data to be collected. Crews have been briefed on the significance of the cloud handling flag and will be rebriefed prior to each STS mission.

b. 6MWS's excess tracking of known objects probably occurred on three of the five passes on which operators used "keyed" short term fences (STF) to acquire the shuttle. The system does not access tasking information in the "keyed STF" mode. Tracking requirements were exceeded due to manual operator actions (see attachment 2).

c. 7MWS's inability to correlate UCT data to Space Shuttle OES data, incorrect correlation, retagging of UCT data following a manual correlation, or a redundant track could have resulted in more data than required being collected and transmitted.

2. Tasking as you required is contingent on the sites having the updated OES in the system prior to each pass. When the shuttle is tracked as a SIGUCT the site's ability to identify and limit tracking is slow and cumbersome. This leads to excessive illumination on such passes. If you desire only automatic tasking, site procedures can be modified to delete all SIGUCT tracks during future shuttle passes. We are assessing our site procedures and can adjust to compensate for your requirements. However, deleting tracks on SIGUCT's is an abnormal configuration which is not recommended unless the over illumination problem is a serious detriment to future shuttle flights.

3. Future requests for analysis should be made as soon as possible after the event because sites recycle system tapes as frequently as every seven days. For this reason, a rigorous analysis of this event could not be made. The corresponding site messages are attached for your review.

*[Signature]*  
C. A. HARRIS, Colonel, USAF  
Director, Space Operations  
DCS Space, Wng & Survl Sys

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1. 20MWS Msg, 281405Z May 81,  
AN/FPS-85 Support of Space  
Shuttle
2. 6MWS Msg, 221245Z May 81,  
Sensor Support of Space  
Shuttle
3. 7MWS Msg, 212015Z May 81,  
Sensor Support of Space  
Shuttle
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